

## **Causes of Mortality in Pinnipeds of Washington State during 2004**

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The Washington Department of Fish and Wildlife, Marine Mammal Investigations unit (WDFW/MMI) is one of the primary responders in the Northwest Marine Mammal Stranding Network and has been responding to stranded marine mammals for over 20 years. In 2004 WDFW/MMI received funding from NOAA Fisheries Prescott Marine Mammal Stranding Grant to investigate cause of mortality of marine mammals in Washington waters. Before receiving the 2004 Prescott Grant, WDFW/MMI received over 100 stranded marine mammal calls annually (both live and dead); performs an average of 25 pinnipeds and 5 cetacean necropsies per year. For the time period specified in the grant of December 1, 2003 to November 30, 2004 a total of 274 calls have been recorded of those 166 have received field number and of those 81 necropsies have been done and 15 live stranding animals. Animals that were picked up alive and either died or were euthanized are included in necropsied totals. Cause of mortality for 2004 for harbor seals include verminious pneumonia infections, protozoal encephalitis, malnutrition and abandonment. Bacterial pathogens in pinnipeds include *Salmonella* spp, *Brucella* spp, *Clostridium difficile* and multiple antibiotic resistant *Escherichia coli*, *Pseudomonas* spp, *E coli*, *Enterococcus* spp, and *Aeromonas* spp. Harbor seals are also used as sentinel animals of biological and chemical contaminant exposure. In 2004, an increased number of stranded, predominantly subadult male sea lions detected in Oregon, Washington and British Columbia from September through December, coincident with the northward migration of these animals. WDFW/MMI on was the lead agency for sampling and responding to sea loins in Washington. In 2004, primary cause of mortality in sea loin has been Leptospirosis and gun shot.